

membrane defining at least in part an enclosed space containing a mixture of at least one metal chlorite and at least one acid forming component, at least of portion of said at least one metal chlorite and at least one acid forming component being in direct contact, said acid forming component being selected from the group consisting of water soluble acids, water soluble acid salts, synthetic molecular sieves, acid ion exchange resins, acid treated clays and acid treated calcined clays, and wherein said metal chlorite and said acid forming component are such that they will react with each other in the presence of water but not in the substantial absence of water to produce chlorine dioxide, said membrane comprising a material which permits: (a) controlled passage of liquid water and/or water vapor into the enclosed space to thereby allow the metal chlorite and the acid forming component to react to produce chlorine dioxide and (b) passage of the so produced chlorine dioxide into a body of liquid water to produce the aqueous solution of chlorine dioxide.

8/3/81